Complete Listing of Claims Pursuant to 37 C.F.R. §1.121

Pursuant to 37 C.F.R. §1.121 the following is a complete listing of the claims of the present application. In this set of claims, please amend the claims as follows. With the amendments to the claims, the following listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-70 [Canceled]

71. [currently amended] A method of stimulating ~~growth~~ proliferation or differentiation of melanocyte ~~precursor~~ cells in a human, the method comprising the step of administering to the human, an amount of a human stem cell factor (SCF) polypeptide and optionally a pharmaceutically acceptable carrier.

see Exm. amdt.

2 72. [previously presented] The method of claim 71 wherein stem cell factor polypeptide selected is selected from the group consisting of amino acids 1-162, 1-164, and 1-165 as set out in SEQ ID NO: 46, said polypeptide optionally consisting of an N-terminal methionine.

3 73. [currently amended] The method of claim 71 wherein the stem cell factor polypeptide is selected from the group consisting of amino acids ~~1-100, 1-110, 1-120, 1-123, 1-127~~, 1-130, 1-133, 1-137, 1-141, 1-145, 1-148, 1-152, 1-156, 1-157, 1-158, 1-159, 1-160, 1-161, 1-163, 1-166, 1-168, 1-173, 1-178, 2-164, 2-165, 5-164, 11-164, 1-180, 1-183, 1-185, 1-188, 1-189, 1-220, and 1-248 as set out in SEQ ID NO: 61, said polypeptide optionally consisting of an N-terminal methionine.

4 74. [previously presented] The method of claim 71 wherein the stem cell factor polypeptide is selected from the group consisting of amino acids 1-152, 1-157, 1-160, 1-161, and 1-220 as set out in SEQ ID NO: 63, said polypeptide optionally consisting of an N-terminal methionine.

75. [currently amended] A method of treating a ~~pigmentation~~ hypopigmentation disorder in a human, the method comprising the step of administering to the human, a therapeutically effective amount of a stem cell factor (SCF) polypeptide, and optionally a pharmaceutically acceptable carrier.

76. [previously presented] The method of claim 75 wherein the stem cell factor polypeptide is selected from the group consisting of amino acids 1-162, 1-164, and 1-165 as set out in SEQ ID NO: 46, said polypeptide optionally consisting of an N-terminal methionine.

77. [previously presented] The method of claim 75 wherein the stem cell factor polypeptide is selected from the group consisting of amino acids ~~1-100, 1-110, 1-120, 1-123, 1-127~~, 1-130, 1-133, 1-137, 1-141, 1-145, 1-148, 1-152, 1-156, 1-157, 1-158, 1-159, 1-160, 1-161, 1-163, 1-166, 1-168, 1-173, 1-178, 2-164, 2-165, 5-164, 11-164, 1-180, 1-183, 1-185, 1-188, 1-189, 1-220, and 1-248 as set out in SEQ ID NO: 61, said polypeptide optionally consisting of an N-terminal methionine.

78. [previously presented] The method of claim 75 wherein the stem cell factor polypeptide is selected from the group consisting of amino acids 1-152, 1-157, 1-160, 1-161, and 1-220 as set out in SEQ ID NO: 63, said polypeptide optionally consisting of an N-terminal methionine.

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5 ~~79~~. [previously presented] The method of claim ~~71 or 75~~ wherein the stem cell factor is covalently conjugated to a water soluble polymer.

1 ~~80~~. [previously presented] The method of claim ~~79~~ 5 wherein the water soluble polymer is polyethylene glycol.

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7 ~~81~~. [previously presented] The method of claim ~~71 or 75~~ 1 wherein the stem cell factor is co administered with at least one other cytokine.

8 ~~82~~. [previously presented] The method of claim ~~79~~ 5 wherein the stem cell factor is co administered with at least one other cytokine.

9 83. [previously presented] The method of claim 71 wherein one or more cytokines are selected from a group consisting of Interleukin-1 (IL-1), Interleukin-2 (IL-2), Interleukin-3 (IL-3), Interleukin-4 (IL-4), Interleukin-5 (IL-5), Interleukin-6 (IL-6), Interleukin-7 (IL-7), Interleukin-8 (IL-8), Interleukin-9 (IL-9), Interleukin-10 (IL-10), Interleukin-11 (IL-11), Interleukin-12 (IL-12), erythropoietin (EPO), Granulocyte Colony-stimulating Growth Factor (G-CSF), Macrophage Colony-Stimulating Factor (M-CSF), Granulocyte-Macrophage Colony-Stimulating Factor (GM-CSF), Insulin-like Growth Factor-1 (IGF-1), and Leukemic Inhibitory Factor (LIF).

10 84. [previously presented] The method of claim 82 wherein one or more cytokines are selected from a group consisting of IL-1, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-11, IL-12, EPO, G-CSF, M-CSF, GM-CSF, IGF-1, and LIF.

11 85. [previously presented] The method of claim 71 wherein the pharmaceutically acceptable carrier is suitable for topical delivery.

12 86. [previously presented] The method of claim 71 wherein the pharmaceutically acceptable carrier is suitable for oral delivery.

13 87. [previously presented] The method of claim 71 wherein the pharmaceutically acceptable carrier is suitable for parenteral delivery.

14 88. [previously presented] The method of claim 71 wherein the pharmaceutically acceptable carrier is suitable for pulmonary delivery.

15 89. [previously presented] The method of claim 71 wherein the pharmaceutically acceptable carrier is suitable for nasal delivery.

90. [previously presented] The method of claim 75 wherein the pharmaceutically acceptable carrier is suitable for topical delivery.

91. [previously presented] The method of claim 75 wherein the pharmaceutically acceptable carrier is suitable for oral delivery.

92. [previously presented] The method of claim 75 wherein the pharmaceutically acceptable carrier is suitable for parenteral delivery.

93. [previously presented] The method of claim 75 wherein the pharmaceutically acceptable carrier is suitable for pulmonary delivery.

94. [previously presented] The method of claim 75 wherein the pharmaceutically acceptable carrier is suitable for nasal delivery.

95. [currently amended] The method of claim 75 wherein the ~~pigmentation~~ hypopigmentation disorder is melanocytopenia.

96. [previously presented] The method of claim 75 wherein the melanocytopenia is selected from the group consisting of vitilago and piebaldism.

97. [new] A method of stimulating proliferation or differentiation of melanocyte cells in a human, the method comprising the step of administering to the human, an amount of a SCF polypeptide having the amino acid sequence of SEQ ID NO:44, SEQ ID NO: 46, or SEQ ID NO: 63, or biologically active fragments thereof that stimulate growth of hematopoietic progenitor cells, and optionally a pharmaceutically acceptable carrier.

see Exmr amdt.

98. [new] A method of treating a hypopigmentation disorder in a human, the method comprising the step of administering to the human, a therapeutically effective amount of a SCF polypeptide having the amino acid sequence of SEQ ID NO:44, SEQ ID NO: 46, or SEQ ID NO: 63, or biologically active fragments thereof that stimulate growth of hematopoietic progenitor cells,, and optionally a pharmaceutically acceptable carrier.

99. [new] The method of claim ~~97 or 98~~ 16 wherein the stem cell factor is covalently conjugated to a water soluble polymer.

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100. [new] The method of claim ~~99~~ 17 wherein the water soluble polymer is polyethylene glycol.

101. [new] The method of claim ~~97 or 98~~ 16 wherein the stem cell factor is co administered with at least one other cytokine.

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102. [new] The method of claim ~~99~~ 17 wherein the stem cell factor is co administered with at least one other cytokine.

21 103. [new] The method of claim 101 wherein one or more cytokines are selected from a group consisting of Interleukin-1 (IL-1), Interleukin-2 (IL-2), Interleukin-3 (IL-3), Interleukin-4 (IL-4), Interleukin-5 (IL-5), Interleukin-6 (IL-6), Interleukin-7 (IL-7), Interleukin-8 (IL-8), Interleukin-9 (IL-9), Interleukin-10 (IL-10), Interleukin-11 (IL-11), Interleukin-12 (IL-12), erythropoietin (EPO), Granulocyte Colony-stimulating Growth Factor (G-CSF), Macrophage Colony-Stimulating Factor (M-CSF), Granulocyte-Macrophage Colony-Stimulating Factor (GM-CSF), Insulin-like Growth Factor-1 (IGF-1), and Leukemic Inhibitory Factor (LIF).

22 104. [new] The method of claim 102 wherein one or more cytokines are selected from a group consisting of IL-1, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-11, IL-12, EPO, G-CSF, M-CSF, GM-CSF, IGF-1, and LIF.

23 105. [new] The method of claim 97 wherein the pharmaceutically acceptable carrier is suitable for topical delivery.

24 106. [new] The method of claim 97 wherein the pharmaceutically acceptable carrier is suitable for oral delivery.

25 107. [new] The method of claim 97 wherein the pharmaceutically acceptable carrier is suitable for parenteral delivery.

26 108. [new] The method of claim 97 wherein the pharmaceutically acceptable carrier is suitable for pulmonary delivery.

27 109. [new] The method of claim 97 wherein the pharmaceutically acceptable carrier is suitable for nasal delivery.

110. [new] The method of claim 98 wherein the pharmaceutically acceptable carrier is suitable for topical delivery.

111. [new] The method of claim 98 wherein the pharmaceutically acceptable carrier is suitable for oral delivery.

112. [new] The method of claim 98 wherein the pharmaceutically acceptable carrier is suitable for parenteral delivery.

113. [new] The method of claim 98 wherein the pharmaceutically acceptable carrier is suitable for pulmonary delivery.

114. [new] The method of claim 98 wherein the pharmaceutically acceptable carrier is suitable for nasal delivery.

115. [new] The method of claim 98 wherein the hypopigmentation disorder is melanocytopenia.

116. [new] The method of claim 98 wherein the melanocytopenia is selected from the group consisting of vitilago and piebaldism.